

**COMMUNICATIONS CABLE**  
**ABSTRACT OF THE DISCLOSURE**

An insulated wire for use in a communications cable, the wire comprising a conductor, at least one inner insulating layer surrounding the conductor, and an outer layer surrounding the insulating layers. At least one of the inner layers is a nano-composite comprising nano-sized platelets and a flame and smoke retardant additive package dispersed in a polyolefin matrix. The outer layer is substantially resistant to flame spread and smoke evolution, substantially impermeable to moisture and moisture absorption and has a dielectric constant lower than about 2.5 and a dissipation coefficient lower than about 0.001 at frequencies up to about 650 MegaHertz.